

REMARKS

Reconsideration and allowance are respectfully requested in light of the above amendments and the following remarks.

Claims 1, 7, and 13-16 have been amended to overcome the rejections under 35 USC §112, first paragraph. Support for the new features recited in the amended claims is provided in the specification on page 4, lines 2-5, page 7, lines 4-7, page 14, lines 9-14 and 19-22, page 16, lines 10-16, and page 17, lines 10-13.

Claims 1, 13, and 15 were rejected, under 35 USC §103(a), as being unpatentable over Papadopoulos et al. (US 6,504,937). Claims 2 and 18 were rejected, under 35 USC §103(a), as being unpatentable over Papadopoulos in view of Kubota et al. (US 5,635,670). Claims 3, 4, and 17 were rejected, under 35 USC §103(a), as being unpatentable over Papadopoulos in view of Takuya (US 4,525,817). Claims 5, 6, 20, and 21 were rejected, under 35 USC §103(a), as being unpatentable over Papadopoulos in view of Lininger (US 3,944,756). Claims 7, 9-12, 14, 16, and 22 were rejected, under 35 USC §103(a), as being unpatentable over Papadopoulos in view of Sondermeyer (US 5,197,102). Claims 8 and 19 were rejected, under 35 USC §103(a), as being unpatentable over Papadopoulos in view of Sondermeyer and further in view of Kubota. Applicant respectfully traverses these rejections.

An object of the invention defined by independent claims 1, 7, and 13-16 is to provide a condenser microphone device that reduces a noise output generated by a high frequency signal radiated or conducted from a transmitting unit of a radio (e.g., cellular telephone), as described on page 6, lines 9-13 of the specification. To attain this object, the device comprises a series resistor inserted in: (1) an interval between a signal output terminal of an amplifying means and an output terminal of the device or (2) an interval between a common output terminal of the amplifying means and a common output terminal of the device, as recited in claims 1, 13, and 15.

Alternatively, the device may include a serial circuit, comprising a blocking capacitor and a damping resistor, of which one end is connected to the signal output terminal of the amplifying means and the other end is connected to the common output terminal of the amplifying means, as recited in claims 7, 14, and 16. The serial circuit damps a parallel resonance of an equivalent circuit, comprising the signal output transmission line, the bypass capacitor, and the serial circuit.

The above-described features of the independent claims distinguish over the applied references in that a high frequency signal radiated or conducted from a transmitting unit of a radio apparatus, through a microphone signal output transmission line,

is reduced in a wide carrier frequency range by attenuating the high frequency signal thus superimposed to the microphone signal output transmission line. This is accomplished by: (1) the series resistor operating in combination with the bypass capacitor to attenuate signal frequencies equal to or higher than 800 MHz to a value equal to or lower than 1/10 of their original value or (2) the series circuit of the damping resistor and blocking capacitor operating to damp a parallel resonance of an equivalent circuit at a resonance frequency equal to or higher than 800 MHz.

As described on page 4, lines 2-11, of the specification, by way of non-limiting illustration only, a high frequency signal is supplied to a microphone signal output terminal 22 through a microphone signal output transmission line 31 and applied to the drain of an FET 19. Thereby, the high frequency signal is supplied to the gate of FET 19 through an electrostatic capacitance between the FET's drain and gate and is AM-detected by a diode used for biasing FET 19 or by a pn junction of a channel and the gate of FET 19. As a result of the AM-detection, a DC component is generated and converted into noise in an audible band.

The features of the present claims have the effect of attenuating the high frequency signal supplied to the microphone

signal output transmission line before the high frequency signal is AM-detected. As a result, the noise generated in the audible band is reduced. This is a characteristic of the invention that distinguishes over the prior art.

By contrast to the noted claimed structures, Papadopoulos teaches a filter for reducing distortion in an audible band (see Papadopoulos col. 3, lines 33-47). Sondermeyer teaches damping a resonance to reduce audible noise produced by a current source (Sondermeyer, col. 6, lines 47-56). These teachings do not suggest the subject matter defined by claims 1, 7, and 13-16, as described above.

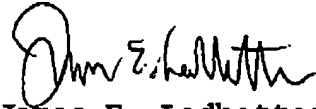
Accordingly, Applicants submit that Papadopoulos does not disclose or suggest the subject matter defined by claims 1, 13, and 15 and the combined teachings of Papadopoulos and Sondermeyer do not teach or suggest the subject matter defined by claims 7, 14, and 16. Therefore, allowance of claims 1, 7, and 13-16 and all claims dependent therefrom is warranted.

In view of the above, it is submitted that this application is in condition for allowance and a notice to that effect is respectfully solicited.

If any issues remain which may best be resolved through a telephone communication, the Examiner is requested to telephone

the undersigned at the local Washington, D.C. telephone number listed below.

Respectfully submitted,



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